FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST-5395

Rim Rock Cove Owner's Association
31478 Moore Road NE #301,
Coulee City, WA 99115

SUMMARY

This fact sheet is a companion document to the draft State Waste Discharge Permit No. ST 5395. The Department of Ecology (the Department) is proposing to renew this permit, which expired on June 30, 2004. This fact sheet provides background information about the facility, evaluates performances of its wastewater system over the past five years, proposes minor changes in the renewed permit, and explains the Department's decisions on limiting pollutants in the wastewater, and provides regulatory and technical bases for those decisions.

During the previous 5 years, the wastewater monitoring DMR reports have showed consistent influent flow pattern changes with the season, and consistently low effluent nitrate. Based on this data, wastewater monitoring frequency was modified to operate the system in a more cost effective way. However, the effluent flow was not measured and the effluent was discharged without disinfection under the previous permit.

It is decided during drafting of this renewal permit, that the effluent Fecal coliform would be monitored for two years. At the end of two years, Ecology will evaluate the testing results of Fecal coliform to determine if disinfection is needed at the end of the effluent pipe.

TABLE OF CONTENTS

FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST-5395

Rim Rock cove Owner's Association
31478 Moore Road, NE #301
Coulee City, WA 99115

INTRODUCTION

Washington State law (RCW 90.48.080 and 90.48.162) requires that a permit be issued before discharge of wastewater to waters of the state is allowed. Regulations adopted by the state include procedures for issuing permits (Chapter 173-216 WAC), and water quality criteria for ground waters (Chapter 173-200 WAC). They also establish requirements which are to be included in the permit.

This fact sheet and draft permit are available for review by interested persons as described in Appendix A--Public Involvement Information.

The fact sheet and draft permit have been reviewed by the Permittee. Errors and omissions identified in these reviews have been corrected before going to public notice. After the public comment period has closed, the Department will summarize the substantive comments and the response to each comment. The summary and response to comments will become part of the file on the permit and parties submitting comments will receive a copy of the Department's response. The fact sheet will not be revised. Changes to the permit will be addressed in Appendix D--Response to Comments.

GENERAL INFORMATION	
Applicant	Rim Rock Cove Owner's Association
Facility Address	31478 Moore Road, NE #301
Type of Facility	2-Cell, Lined Storage and Evaporation Lagoon
Type of Treatment:	Two-cell, lined, Non-overflow Evaporation Pond
Discharge Location	Latitude: 47° 32' 33" N Longitude: 119° 27' 56" W.
Contact at Facility	Name: Doug Scott, Telephone #: (509) 546-3240
Responsible Official	Name: Jack Mettlel Title : RV Park Manager Address: 31478 Moore Road, NE #301 Telephone : (509) 632-5200 Fax : (509) 632-5215

BACKGROUND INFORMATION

DESCRIPTION OF THE FACILITY

Rim Rock Cove is a recreational mobile/RV Park, located in Grant County about 100 miles west of Spokane and 35 miles north of Moses Lake (Figure 1). The development was built in the early 1970's and is primarily used during the warm months of the year. The developed park is situated on the south and east shores along the south end of Blue Lake, which is in the Lower Grand Coulee area. Lower Grand Coulee is a several hundred foot canyon, carved into the basalt bedrock. The bottom of the canyon currently supports a series of lakes, connected by streams generally flowing to the south through the canyon rimmed by sheer basalt cliffs.

The development is supplied with potable water by a shallow well located about 300 feet from the shore. Due to the recreational nature of the development, the population of Rim Rock Cove varies with the season, and the summer peak population can reach approximately 700.

FACILITY BACKGROUND INFORMATION

The Rimrock Cove Water Front Recreational Facility was developed in the early 1970's. The facility has 196 lots for mobile home and RV connections. Since the completion of the construction, the lots have been sold and resold. There are no empty lots at the present time. Most lot owners have mobile homes and use their facility as weekend, or warm weather vacation homes. The permanent residents staying year around in the park amount to 7 people; however the population in the summer peak period can go as high as 700 people.

The original collection and wastewater treatment system was built during 1969-1970s. The system was designed to handle a population of 530 residents or about 15,000 gallons of wastewater per day. The original treatment system was a 2-cell earthen lined, non-over flow lagoon, with the first pond of 2.4 acres, and the second small pond of 0.8 acres. In 1978, the homeowners partitioned that the larger pond be divided into 4 smaller cells for better treatment.

In 1996, the first wastewater discharge permit was issued to the facility, which required the facility to upgrade its wastewater system to meet current standards. In October, 1998, the wastewater pond system was reconstructed into a 4-cell system. The first and the second cell is ½ acre each, and lined with a single 60 mil HDPE liner. The third and the fourth pond are approximately 1 acre each, and remained earthen lined for receiving the treatment effluent. The intent of the design was to provide sufficient retention time in the first 2 lined ponds to reduce effluent nitrogen concentration under 10 mg/L.

COLLECTION SYSTEM

The collection system consists of approximately 8,300 lineal feet of 8 inch asbestos cement gravity sewer. In 1998, during the upgrade construction, a manhole was added at the south end of the park to collect sewers from all hookups. From this manhole, the wastewater flows by gravity to the first lined pond for treatment. The daily influent flow is measured at this manhole.

TREATMENT SYSTEM

The wastewater from the collection manhole flows to a 2-cell, ½ acre each, and lined with a single 60 mil HDPE liner pond system for treatment. The two ponds are maintained at the same level, approximately between three and five feet. The treated water then flows to the third earthen-lined cell through an overflow pipe from the second pond. In the event that the third cell fills up to the elevation of the interconnecting pipe, the treated effluent will flow into the final earthen-lined cell at the south end of the lagoon area.

The peak BOD loading value throughout the year is 15lbs/day. The system provides from 170 days hydraulic detention time to approximately 240 days during the winter months when flows are historically lower. The system was designed such that the effluent nitrogen level was to be below 10 mg/L. The current operator is a licensed group I operator, and one of the year around residents at the facility.

After the 2-cell pond treatment, the effluent overflows to a third earthen lined pond without disinfection. A fourth unlined pond is available for wastewater disposal if it is needed. The unlined ponds were overgrowing with vegetations. The water level was low in the third pond and no water was in the fourth pond at the time of our visit in March, 2005. The entire facility is fenced.

GROUND WATER

Ground water beneath the site is contained within an aquifer within the basalt bedrock. Based on the approximate water surface elevation within the well that supplies the development, groundwater elevation beneath the park are approximately 20 feet below lake elevation. Surface water, as represented by Blue Lake, the interconnecting stream and other nearby water bodies was assumed by the consultant to be perched above the relatively impermeable surface of the underlying basalt bedrock.

The consultant concluded in 1999 that, there was no need to provide additional hydrogeologic analysis. The past 5 year wastewater monitoring data shows that the total nitrate from the effluent has been consistently lower than 0.07 mg/l, TDS (Total dissolved solids) was not monitored, and there is no sufficient data to determine impact to the ground water. It is recommended that during this permit cycle, the ground water level and the total coliform bacteria in the ground water be monitored.

PERMIT STATUS

The first State Wastewater Discharge Permit was issued to the facility on July 15, 1999. The current permit expired on June 30, 2004.

An application for permit renewal was submitted to the Department on March 18, 2005 and accepted by the Department on March 23, 2005.

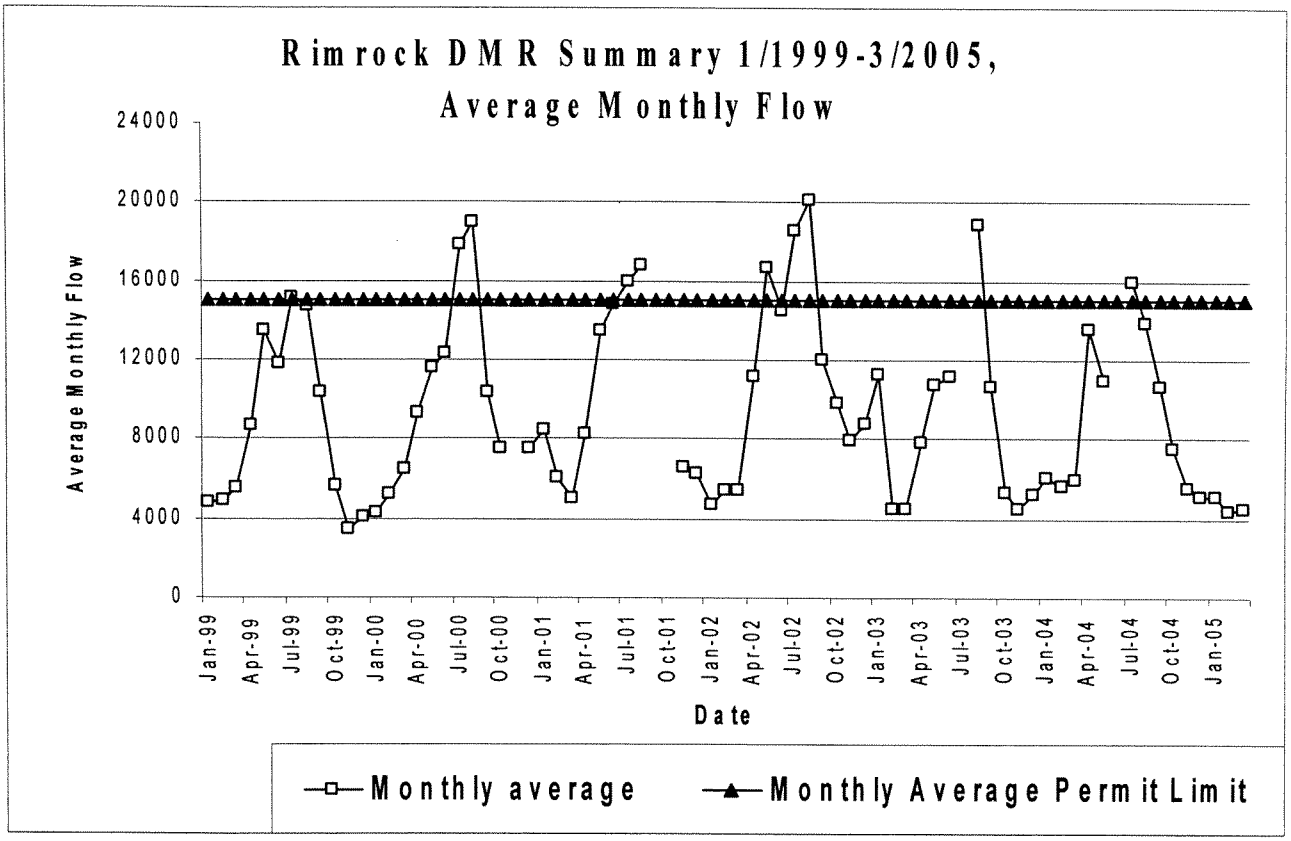
SUMMARY OF COMPLIANCE WITH THE PREVIOUS PERMIT

The facility last received an inspection on March 18, 2005. During the history of the previous permit, the Permittee has experienced high flows during summer peak season; this resulted in exceedences of average monthly flow during summer months. The total nitrate from the effluent has been consistently below the permit limit. Other effluent parameters, such as BOD, pH and TKN are in an acceptable range; however there are no limits on these parameters.

WASTEWATER CHARACTERIZATION

Wastewater discharge was monitored on a daily basis. The concentration of pollutants in the discharge was reported in discharge monitoring reports (DMRs) since 1999. The parameters tested are influent flow, effluent pH, influent and effluent BOD, effluent TKN, nitrate, and lagoon depth.

The chart below shows the influent flow from 6 years of DMR report. From this chart, it is clear, that every summer the flow has exceeded the monthly average flow limit, and during winter months the flow was consistently low. Effluent nitrite has been consistently around 0.07mg/l, below the ground water standard of 10mg/l. Effluent BOD and TKN monthly tests have been in an acceptable range. The original spread sheet data is attached to this fact sheet.



PROPOSED PERMIT LIMITATIONS

State regulations require that limitations set forth in a waste discharge permit must be either technology- or water quality-based. Wastewater must be treated using all known, available, and reasonable treatment (AKART) and not pollute the waters of the State.

The minimum requirements to demonstrate compliance with the AKART standard are derived from the Water Reclamation and Reuse Interim Standards, the Design Criteria for Municipal Wastewater Land Treatment, and Chapter 173-221 WAC. The facility has achieved AKART in 1999, when they installed 60 mil HDPE liners in their two lagoons.

TECHNOLOGY-BASED EFFLUENT LIMITAIONS

All waste discharge permits issued by the Department must specify conditions requiring available and reasonable methods of prevention, control, and treatment of discharges to waters of the state (WAC 173-216-110)

GROUND WATER QUALITY-BASED EFFLUENT LIMITATIONS

In order to protect existing water quality and preserve the designated beneficial uses of Washington's ground waters including the protection of human health, WAC 173-200-100 states that waste discharge permits shall be conditioned in such a manner as to authorize only activities that will not cause violations of the Ground Water Quality Standards. Drinking water is the beneficial use generally requiring the highest quality of ground water. Providing protection to the level of drinking water standards will protect a great variety of existing and future beneficial uses.

Applicable ground water criteria as defined in Chapter 173-200 WAC and in RCW 90.48.520 for this discharge include the following:

Table 1 Ground Water Quality Criteria

Total Coliform Bacteria	1 Colony /100 ml
Total Dissolved Solids	500 mg/l
Chloride	250 mg/l
Sulfate	250 mg/l
Nitrate	10 mg/l
pH	6.5 to 8.5 stand units
Manganese	0.05 mg/l
Total Iron	0.3 mg/l

EFFLUENT LIMIT

The final effluent limits will be based on the ground water criteria in Table 1. Effluent nitrate has been monitored for 5 years, and has shown consistently at around 0.07 mg/l, significantly lower than the criteria; therefore nitrate will be removed from the monitoring. Chloride and Sulfate are not considered significant contributing pollutants from conventional sanitary sewer, and the TDS monitoring test will include these two pollutants. Metals in the sanitary sewer will most likely end up in the sludge.

The facility has been monitoring the influent flow, but not the effluent discharge flow. In this permit cycle, a compliance schedule will be in place to require measurement of effluent flows. Over all, the permit limit in this permit cycle will be as following:

Table 2 Effluent Limits

Parameters	**Limits**
Total Dissolved Solids	500 mg/l
pH	6.5 to 8.5 stand units

MONITORING REQUIREMENTS

Monitoring, recording, and reporting are specified to verify that the treatment process is functioning correctly, that ground water criteria are not violated, and that effluent limitations are being achieved (WAC 173-216-110).

WASTEWATER MONITORING

The monitoring schedule is detailed in the proposed permit under Condition S2. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring.

During this permit cycle, it is required to monitoring effluent flow as well as influent flow. The effluent flow meter will be installed according to the compliance schedule, and the effluent should be disinfected. This should start at the same time of the effluent flow meter installation data. Other effluent pollutants include Fecal coliform, BOD, TDS and TKN and pH. Monitoring frequencies have been adjusted to narrow down the data collection only during the usage season of the facility. During winter months, there is not much flow, and it is unsafe trying to collect samples when the lagoon dike is slippery and frozen. The modified and detailed monitoring schedule is as following:

Table 3 Wastewater Monitoring`

Parameter	Sample Point	Sample frequency	Sample Type
Flow (gpd)	Influent manhole	daily	measured
Flow (gpd)	Effluent, #3 pond	weekly	measured
pH	Effluent	1/month in Peak usage months of April, May, June, July, August and September	grab
Fecal coliform (# /100 ml)	Effluent		grab
BOD (mg/l)	Effluent		8 hr composite
TKN (mg/l)	Effluent		grab
TDS (mg/l)	Effluent		grab

Table 4 Ground Water Monitoring

Parameter	Sample Point	Sample frequency	Sample Type
Ground water level (feet)	Ground water well	weekly	measured
Total coliform bacteria (colony/100 ml)	Ground water well	Once/ per year in July and December	grab

OTHER PERMIT CONDITIONS

REPORTING AND RECORDKEEPING

The conditions of S3 are based on the authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges (WAC 273-216-110).

OPERATIONS AND MAINTENANCE

The proposed permit contains condition S.5. as authorized under Chapter 173-240-150 WAC and Chapter 173-216-110 WAC. It is included to ensure proper operation and regular maintenance of equipment, and to ensure that adequate safeguards are taken so that constructed facilities are used to their optimum potential in terms of pollutant capture and treatment. The current O & M Manual should be updated to include changes proposed in this permit.

RESIDUAL SOLIDS HANDLING

Any solids removed from the lagoons should be land applied under a permit from the Grant Count Health Department. All other solids (includes grit, screenings, scum, and sludge) should be handled in accordance with the requirements of RCW 90.48.080 and 40 CFR 503.

NON-ROUTINE AND UNANTICIPATED DISCHARGES

Occasionally, this facility may generate wastewater which is not characterized in their permit application because it is not a routine discharge and was not anticipated at the time of application. These typically are waters used to pressure test storage tanks or fire water systems or leaks from drinking water systems. These are typically clean waste waters but may be contaminated with pollutants. The permit contains an authorization for non-routine and unanticipated discharges. The permit requires a characterization of these waste waters for pollutants and examination of the opportunities for reuse. Depending on the nature and extent of pollutants in this wastewater and opportunities for reuse, Ecology may authorize a direct discharge via the process wastewater outfall or through a stormwater outfall for clean water, require the wastewater to be placed through the facilities wastewater treatment process or require the water to be reused.

COMPLIANCE SCHEDULE

The facility is required to monitor effluent flow and disinfect the effluent prior to discharge to the third unlined pond. The flow meter and the disinfection unit should be installed at the same time, and start operation at about the same time. The specific schedule is as following:

Effluent flow meter installation: No later than July 31, 2006, Rimrock Cove facility should install a flow meter (or portable flow meter) at the point of discharge pipe at the third pond to measure effluent flows on a weekly basis. The planning, design and the installation of the flow meter should be approved by your consultant or by a licensed PE engineer. When the flow meter is installed, the facility should notify the Department, so our office can schedule a field inspection to confirm the installation and to review data collected from the flow meter.

GENERAL CONDITIONS

General Conditions are based directly on state laws and regulations and have been standardized for all industrial waste discharge to ground water permits issued by the Department.

Condition G1 requires responsible officials or their designated representatives to sign submittals to the Department. Condition G2 requires the Permittee to allow the Department to access the treatment system, production facility, and records related to the permit. Condition G3 specifies conditions for modifying, suspending or terminating the permit. Condition G4 requires the Permittee to apply to the Department prior to increasing or varying the discharge from the levels stated in the permit application. Condition G5 requires the Permittee to construct, modify, and operate the permitted facility in accordance with approved engineering documents. Condition G6 prohibits the Permittee from using the permit as a basis for violating any laws, statutes or

regulations. Conditions G7 and G8 relate to permit renewal and transfer. Condition G9 requires the payment of permit fees. Condition G10 describes the penalties for violating permit conditions.

RECOMMENDATION FOR PERMIT ISSUANCE

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics, and to protect human health and the beneficial uses of waters of the State of Washington. The Department proposes that the permit be issued for 5 years.

REFERENCES FOR TEXT AND APPENDICES

Washington State Department of Ecology, 1993. Guidelines for Preparation of Engineering Reports for Industrial Wastewater Land Application Systems, Ecology Publication # 93-36. 20 pp.

Washington State Department of Ecology, 1996. Implementation Guidance for the Ground Water Quality Standards, Ecology Publication # 96-02.

APPENDICES

APPENDIX A--PUBLIC INVOLVEMENT INFORMATION

The Department has tentatively determined to reissue a permit to the applicant listed on page 1 of this fact sheet. The permit contains conditions and effluent limitations which are described in the rest of this fact sheet.

Public notice of application was published on June 19 and June 26, 2003 in the Columbia Basin Herald to inform the public that an application had been submitted and to invite comment on the reissuance of this permit.

This permit was written by Ying Fu.

APPENDIX B--GLOSSARY

Ammonia--Ammonia is produced by the breakdown of nitrogenous materials in wastewater. Ammonia is toxic to aquatic organisms, exerts an oxygen demand, and contributes to eutrophication. It also increases the amount of chlorine needed to disinfect wastewater.

Average Monthly Discharge Limitation--The average of the measured values obtained over a calendar month's time.

Best Management Practices (BMPs)--Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

Compliance Inspection - Without Sampling--A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

Compliance Inspection - With Sampling--A site visit to accomplish the purpose of a Compliance Inspection - Without Sampling and as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. Additional sampling may be conducted.

Composite Sample--A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite"(collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots.

Construction Activity--Clearing, grading, excavation and any other activity which disturbs the surface of the land. Such activities may include road building, construction of residential houses, office buildings, or industrial buildings, and demolition activity.

Continuous Monitoring –Uninterrupted, unless otherwise noted in the permit.

Engineering Report--A document, signed by a professional licensed engineer, which thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report shall contain the appropriate information required in WAC 173-240-060 or 173-240-130.

Grab Sample--A single sample or measurement taken at a specific time or over as short period of time as is feasible.

Maximum Daily Discharge Limitation--The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar

day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

Method Detection Level (MDL)--The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is above zero and is determined from analysis of a sample in a given matrix containing the analyte.

pH--The pH of a liquid measures its acidity or alkalinity. A pH of 7 is defined as neutral, and large variations above or below this value are considered harmful to most aquatic life.

Quantitation Level (QL)-- A calculated value five times the MDL (method detection level).

State Waters--Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

Stormwater--That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a storm water drainage system into a defined surface water body, or a constructed infiltration facility.

Technology-based Effluent Limit--A permit limit that is based on the ability of a treatment method to reduce the pollutant.

Total Dissolved Solids--That portion of total solids in water or wastewater that passes through a specific filter.

Total Suspended Solids (TSS)--Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

Water Quality-based Effluent Limit--A limit on the concentration of an effluent parameter that is intended to prevent pollution of the receiving water.

APPENDIX C – RESPONSE TO COMMENTS

Figure 1

APPENDIX C—SITE MAP

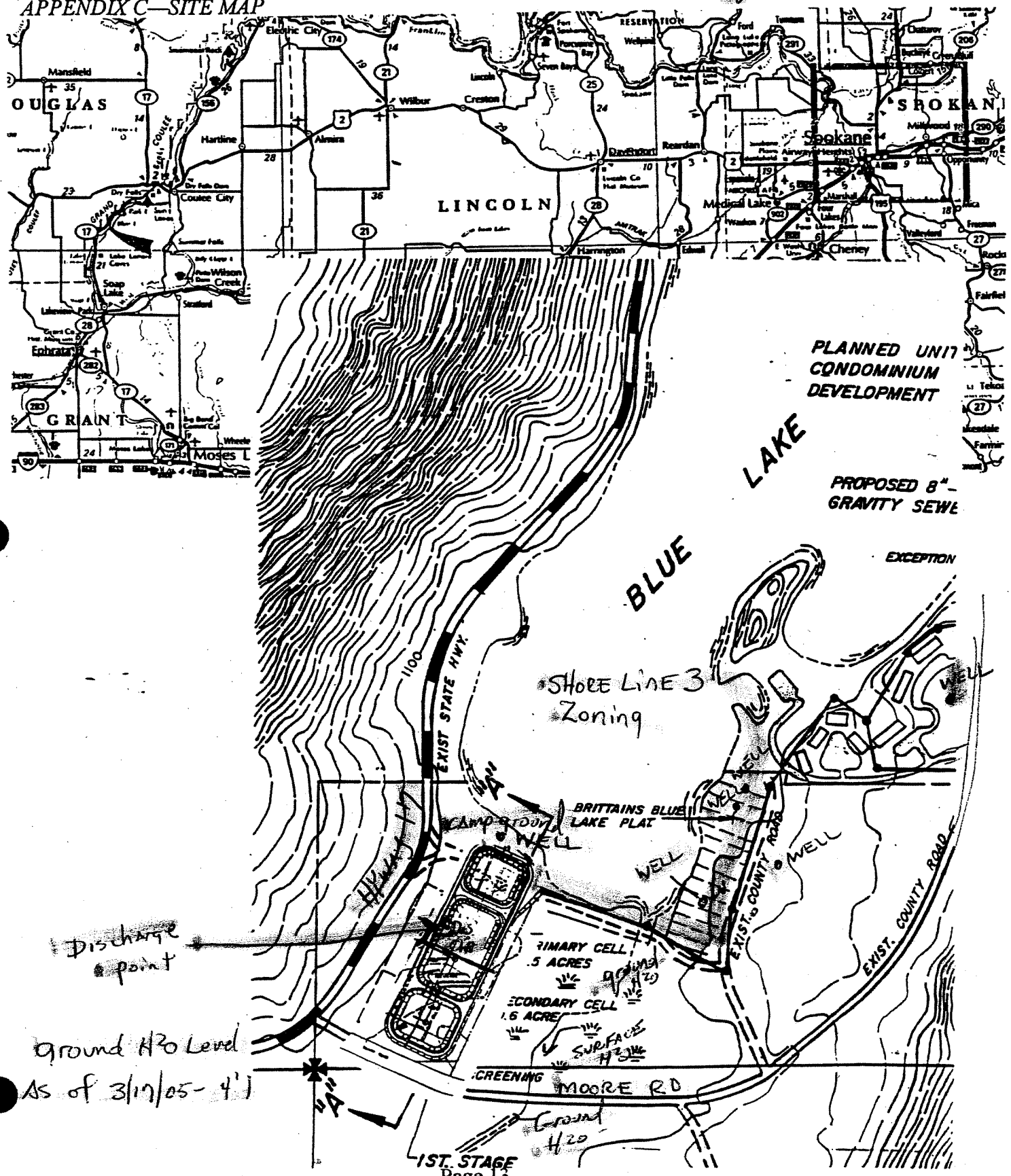
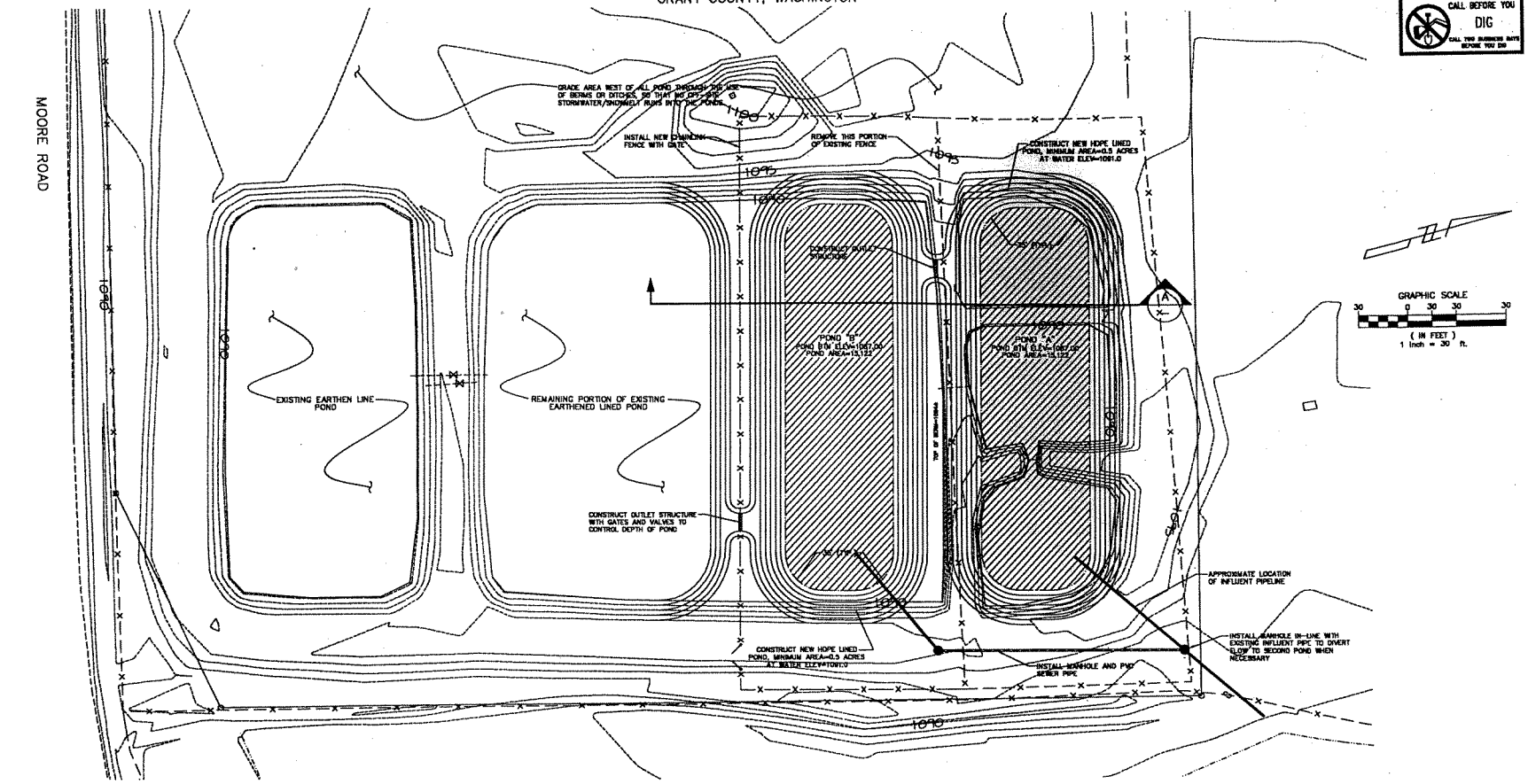
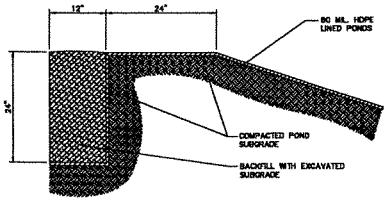


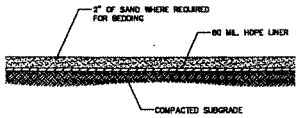
Figure 2

SEC. 29, T.24 N., R.27 E.,W.M.
GRANT COUNTY, WASHINGTON

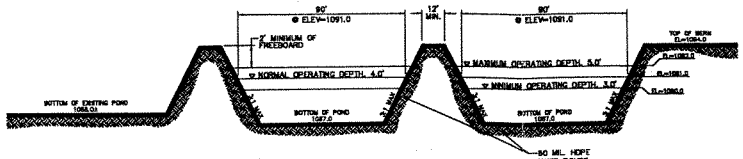




LINER ANCHOR DETAIL 1



LINER DETAIL 2



SECTION A

DATUM
ASSUMED ELEVATION

UNDERGROUND SERVICE ALERT
CALL BEFORE YOU DIG
CALL TWO BUSINESS DAYS BEFORE YOU DIG

NO.	DATE	BY	REVISIONS

DATE: 7/15/97
DRAWN BY: CLK
DESIGNED BY: TAS
CHECKED BY: TAS

SCALE:
HORIZONTAL: 1"=30'
VERTICAL: AS NOTED

INLAND PACIFIC ENGINEERING
707 West 7th - Suite 200
Spokane, WA 99204
(509) 458-8840
FAX: (509) 458-8844

RIMROCK COVE LAGOONS
PRELIMINARY DESIGN FOR SEWAGE FACILITY IMPROVEMENTS
SEWER

SHEET 1 OF 1
JOB NUMBER 97052

Figure 3

Rimrock Cove Owners Association DMR Summary Report (Jan, 1999 -- Mar, 2005)

Date	Influent flow monthy avg	Influent max (gpd)	Effluent BOD (mg/l)	Effluent Nitrate (mg/l)	Effluent TKN (mg/l)	Effluent TDS (mg/l)	Pond #1 (feet)	Pond #2 feet
Jan-99	4837	9383						
Feb-99	4944	9464	27.5	0.07	1.2		5'6"	5"6'
Mar-99	5503	8386						
Apr-99	8677	18583	5	0.07	2.3		5'8"	5"8'
May-99	13413	28970	5	0.08	3.8		5'2"	
Jun-99	11830	19257	16.5	0.07	3.9		4'11"	
Jul-99	15143	26712	5	0.07	6.2	644	3'8"	
Aug-99	14748	19048	7.5	0.07	3.9		4'7"	
Sep-99	10282	21956	13.5	0.07	5		4'3"	
Oct-99	5660	10713	162	0.07	5.1		4'4"	
Nov-99	3448	4553						
Dec-99	4024	5693						
Jan-00	4304	6412					4'2"	
Feb-00	5206	7878	9	0.07	4		5'8"	
Mar-00	6433	13986						
Apr-00	9313	22962	9	0.07	4.9		4'7"	
May-00	11552	26758						
Jun-00	12364	21531	9	0.07	4.9		4'6"	
7/1/2000	17880	28978	5	0.07	5.2	750	4'1"	
8/1/2000	18977	27894	16.5	0.07	7.3		3'9"	
9/1/2000	10283	23775	12	0.07	9.4		4'2"	
10/1/2000	7500	11024	33	0.07	14.1		4'5"	
11/1/2000								
12/1/2000	7484	48783					5'1"	
1/1/2001	8482	9280						
2/1/2001	6087	11508					5'5"	
3/1/2001	4978	7926					5'10"	
4/1/2001	8201	17344	30	0.07	15.7		4'5"	
5/1/2001	13436	53049	36	0.07	12.9		4'9"	
6/1/2001	14841	20186	48	0.07	18.9		4'8"	
7/1/2001	16006	23891	94.5	0.07	22.8	894	4'11"	
8/1/2001	16748	25946	39	0.16	18		4'10"	
9/1/2001								
10/1/2001								
11/1/2001	6577	12028					4'10"	
12/1/2001	6244	9157					4'10"	
1/1/2002	4660	7246	18	0.09	18		4'10"	
2/1/2002	5466	7693					4'10"	
3/1/2002	5477	9774					4'10"	
4/1/2002	11216	19444	49	0.07	14.6		4'9"	
5/1/2002	16716	29088	34.5	0.07	11		4'10"	
6/1/2002	14492	26284	19.5	0.07	14.7		4'10"	
7/1/2002	18523	29587	45	0.07	18.7	1040	4'10"	
8/1/2002	20178	32773	21	0.07	11.5		4'10"	
9/1/2002	12004	18582	21	0.07	16.2		4'10"	
10/1/2002	9762	18296	42	0.07	18.5		4'10"	
11/1/2002	7921	12483					4'10"	
12/1/2002	8752	13574					4'10"	
1/1/2003	11292	29565	8	0.07	15.2		4'10"	
2/1/2003	4500	7325					4'10"	
3/1/2003	4518	8006					4'10"	
4/1/2003	7785	18056	54	0.1	13.7		4'10"	
5/1/2003	10746	28366	21.6	0.07	13.7		4'10"	
6/1/2003	11142	15679	88	0.13	18.7		4'10"	
7/1/2003						914		
8/1/2003	18910	29313	39	0.07	13.1			
9/1/2003	10594	19084	14	0.07	12.5			
10/1/2003	5350	9131	15	0.07	13.7			
11/1/2003	4484	6990						
12/1/2003	5232	6820						
1/1/2004	6070	10482						
2/1/2004	5652	8152						
3/1/2004	5905	11194	20	0.07	9.1			
4/1/2004	13615	23843	31.5	0.71	10.2			
5/1/2004	10961	23045	10.5	0.07	7.6			
6/1/2004								
7/1/2004	15928	25465	71	0.08	15.9	910		
8/1/2004	13928	19326	33	0.07	9.3			
9/1/2004	10673	24211	61.9	0.07	16.7			
10/1/2004	7518	21339	24	0.07	9.7			
11/1/2004	5492	10340						
12/1/2004	5096	6652						
1/1/2005	5145	7480	14	0.09	11.8			
Feb-05	4429	5596						
Mar-05	4443	6246						